

REMARKS

Claims 5, 7-12, 14-22, 24, and 30 remain in the application with claims 5, 7, 9-11, 14, 16, 21, 24, and 30 having been amended hereby and claims 1-4, 6, 13, 23, 25-29, 31, and 32 having been cancelled, without prejudice or disclaimer.

Reconsideration is respectfully requested of the objection to the drawings.

The claims have been amended to recite the manner in which the invention is shown in the drawings, that is, with the pins being in the socket connector. In addition, claim 32 has been cancelled.

Therefore, it is respectfully submitted that the structure set forth in the claims is clearly and adequately shown in the drawings.

Reconsideration is respectfully requested of the rejection of the claims under 35 USC § 112, second paragraph as being indefinite.

The claims have been amended hereby to meet all of the objections raised by the examiner.

Accordingly, it is respectfully submitted that the claims are clear and definite in their recitation of the present invention and meet all requirements of 35 USC § 112.

The cancellation of claim 1 renders moot the rejection thereof under 35 USC § 102(b).

Reconsideration is respectfully requested of the rejection

of claim 5 under 35 USC § 102(b), as being anticipated by Gefvert.

The present invention relates to a system for interconnecting the several loudspeakers in an audio/video system and has as its features the provision of plugs which only fit into sockets in a certain way in order to maintain the polarity and a system of identifying the several wires or cables so that they can be connected to the proper socket or loudspeaker. One identifying feature involves placing colored labels on the loudspeakers and matching the cable colors to the label colors and another feature relates to providing a shrink wrap identifying tube that can be used to identify the channel and the polarity of the wire.

The claims have been amended hereby to emphasize the above-noted features of the present invention.

Claim 5 has been amended to include the recitation relating to providing the output terminals with a plurality of colors so that the channels are discernable one from another and then providing the connecting cables with the plurality of colors so they can be properly connected and, further, to recite that the plurality of colors are provided by thermally contractile tubes secured to the cables.

Gefvert relates to a sound system having a plurality of loudspeakers connected to the main amplifier and are arranged corresponding to the physical location of the speakers.

The features of the present invention now included in claim 5 are alleged to be shown in Ruzicka and Siems et al.

Ruzicka is cited for its mention in the background of the invention portion of the patent that "the most recent attempts to facilitate the installation process have involved color coding the connections at the speaker and at the audio signal source in addition to labeling the connection jacks for the user to view."

Siems et al. relates to an engine wiring system. Siems et al. discloses in the background art portion of the patent that it is known "to color code the electrical connectors to correspond with the proper connection in a connection junction or terminal plate to assist the user in making the electrical connection." Nevertheless, Siems et al. states that in complex wiring systems, color coding is not sufficient and proceeds to describe a system whereby alpha-numeric indicia are applied to each wire in the system corresponding to its desired connection point. The alpha-numeric indicia, that is, labels, are applied using heat shrink plastic markers.

It is respectfully submitted that combining Ruzicka and Siems et al. with Gefvert would still not result in the presently claimed invention of claim 5 and, moreover, that there is no suggestion in any of the references of any benefits that would be had by providing a combination, as now set forth in amended claim 5. For example, Siems et al. clearly discloses that using colors is not a sufficient and advantageous approach to labeling

cables.

It is respectfully submitted that there is no suggestion of any benefits to be had by a system, as now recited in amended claim 5, absent the teaching of the present invention. As noted, for example, by the Court of Appeals for the Federal Circuit In re. Fritch 972 F.2d 1260, 23 USPQ2d 1780 (Fed. Cir. 1992), the mere fact that the prior art could be modified to reflect the features of the claimed invention does not make such modification obvious unless the desirability of the modification is suggested in the references. The claimed invention should not be used as a template to piece together teachings of prior art so that the claimed invention is rendered obvious.

Reconsideration is respectfully requested of the rejection of claims 6-10 under 35 USC § 103, as being unpatentable over Gefvert in view of Ruzicka.

Claim 6 has been cancelled and claims 7-10 depend now from claim 5, which for the reasons set forth hereinabove is thought to be patentably distinct over the cited references and, for at least those very same reasons, claims 7-10 are also submitted to be patentably distinct thereover.

Reconsideration is respectfully requested of the rejection of claims 11 and 15 under 35 USC § 103, as being unpatentable over Gefvert and Ruzicka and further in view of Glover. Claims 11 and 15 depend from claim 5, which for the reasons set forth hereinabove is thought to be patentably distinct over the cited

references and, for at least those very same reasons claims 11 and 15 are also submitted to be patentably distinct thereover. Claims 11 and 15 relate to the feature of the present invention in which a ribbed member is provided in the socket connector that can only mate with a lower slit formed in the plug, so that correct polarity is assured in the connection.

Glover relates to an electrical connector assembly in which the plug and socket are shaped in a nonsymmetrical shape, so that only one orientation is possible in mating the connector parts.

Reconsideration is respectfully requested of the rejection of claim 12 under 35 USC § 103, as being unpatentable over Gefvert and Ruzicka and further in view of Glover and Lee.

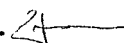
Claim 12 depends from claim 5, which for the reasons set forth hereinabove is thought to be patentably distinct over the cited references and, for at least those very same reasons, claim 12 is also submitted to be patentably distinct thereover. Claim 12 relates to providing a plug connector on both ends of the cable member so that the cable can connect the audio video device and the loudspeaker.

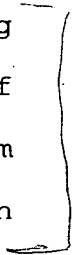
Lee is cited for its showing of a cable system in which an RCA connector or plug is provided at each end of a cable.

Reconsideration is respectfully requested of the rejection of claims 13 and 14 under 35 USC § 103, as being unpatentable over Gefvert and Ruzicka and further in view of Siems et al.

Claim 13 has been cancelled and claim 14 now depends from claim 5, which for the reasons set forth hereinabove is thought to be patentably distinct over the cited references, which have been discussed hereinabove.

Reconsideration is respectfully requested of the rejection of claims 16, 17, and 20 under 35 USC § 102(e), as being anticipated by Ruzicka.

Claim 16 has been amended hereby to recite that the cable members are identified using thermally contractile tubes. 

As discussed hereinabove, Siems et al. is cited as showing this features however, will be noted from a close reading of Siems et al. that, in fact, Siems et al. teaches away from providing colored thermally contractile tube elements for use in identifying cable members. 

Reconsideration is respectfully requested of the rejection of claims 18 and 19 under 35 USC § 103, as being unpatentable over Ruzicka.

Claims 18 and 19 depend from claim 16, which for the reasons set forth hereinabove is thought to be patentably distinct and, for at least those very same reasons, claims 18 and 19 are also thought to be patentably distinct over the cited references.

Reconsideration is respectfully requested of the rejection of claim 21 under 35 USC § 103, as being unpatentable over Ruzicka in view of Glover.

Claim 21 depends from claim 16, which for the reasons set

forth hereinabove is thought to be patentably distinct over the cited references and, for at least those very same reasons, claim 21 is also submitted to be patentably distinct thereover.

Claim 21 relates to the further structure of the connectors and includes the arrangement of the pins and position controlling means for maintaining the desired polarities.

Glover, as noted hereinabove, relates to a nonsymmetrical electrical connecting assembly.

The cancellation of claim 22 renders moot the rejection thereof under 35 USC § 103.

Reconsideration is respectfully requested of the rejection of claims 23 and 24 under 35 USC § 103, as being unpatentable over Ruzicka and further in view of Siems et al.

Claim 23 has been cancelled and claim 24 now depends from claim 16, which for the reasons set forth hereinabove is thought to be patentably distinct over the cited references.

The cancellation of claim 25 renders moot the rejection thereof under 35 USC § 102(b).

The cancellation of claims 26-28 renders moot the rejection thereof under 35 USC § 103.

The cancellation of claim 29 renders moot the rejection thereof under 35 USC § 102(b).

Reconsideration is respectfully requested of the rejection of claims 30 and 31 under 35 USC § 103, as being unpatentable over Glover in view of Siems et al.

As noted hereinabove, it is respectfully submitted that the combination of the references fails to show or suggest a provision of color coding cables using thermally contractile tubes using specific colors used to form the identification. The examiner suggests that Glover relates to a connector bearing one of a plurality of predetermined colors. Nevertheless, there is no mention in Glover of the provision of colors in relation to the electrical conductors used in that connector assembly. Similarly, the examiner states that Siems et al teaches the use of thermally contractile tubes of different colors. As pointed out hereinabove, Siems et al. teaches that using colors is not an appropriate approach to identifying cables in a wiring system and rather uses heat shrink tubes bearing alpha-numeric indicia to perform the identification.

Therefore, it is respectfully submitted that claim 30 is not rendered obvious by the cited references, alone or in combination.

The cancellation of claim 32 renders moot the rejection thereof under 35 USC § 103.

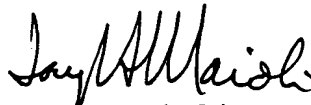
Accordingly, by reason of the amendments made to the claims hereby, as well as the above remarks, it is respectfully submitted that a connector system, as taught by the present invention and as recited in the amended claims, is neither shown nor suggest in the cited references, alone or in combination.

Favorable reconsideration is earnestly solicited.

7217/64048

Respectfully submitted,

COOPER & DUNHAM LLP

A handwritten signature in black ink, appearing to read "Jay H. Maioli". The signature is written in a cursive, flowing style.

Jay H. Maioli
Reg. No. 27, 213

JHM:gr

VERSION WITH MARKINGS TO SHOW CHANGES MADEIN THE CLAIMS

Please amend claims 5, 7, 9-11, 14, 16, 21, 24, and 30 by rewriting same to read as follows and cancel claims 1-4, 6, 13, 23, 25-29, 31, and 32 without prejudice or disclaimer.

--5. (Twice Amended) A multi-channel audio system comprising:

an electronic apparatus provided with at least four audio signal output terminals for a plurality of channels;

a plurality of speakers for generating acoustic output for each of said plurality of channels in a form of audio signals output from said audio signal output terminals; and

a plurality of connecting cable members, each of said plurality of connecting cable members incorporating a pair of conductor members [each] bearing a pair of polarities and sheathed by one of plurality of insulating sheathing members for connecting said electronic apparatus to said plurality of speakers, wherein

each of said audio signal output terminals is arranged corresponding to positions of said plurality of speakers, said plurality of speakers being arranged corresponding to said plurality of channels[.], wherein

each of said audio signal output terminals is distinguished by one of a plurality of colors for enabling each of said plurality of channels to be discernible; and

each of said plurality of connecting cable members is distinguished by one of said plurality of colors corresponding to a color distribution of said audio signal output terminals, and wherein

said distinction of each of said plurality of connecting cable members is implemented by a plurality of thermally contractile tubes each bearing a different color secured to each of said plurality of connecting cable members.

--7. (Twice Amended) The multi-channel audio system according to Claim [6] 5, wherein each of a plurality of speaker terminals is distinguished by one of said plurality of colors corresponding to said color distribution of said audio signal output terminals.

--9. (Twice Amended) The multi-channel audio system according to Claim [6] 5, wherein said distinguishing of each of said audio signal output terminals is performed by adhering a plurality of sheets each bearing a different color in proximity to each of said audio signal output terminals.

--10. (Twice Amended) The multi-channel audio system according to Claim [6] 5, wherein said distinguishing of each of said audio signal output terminals is performed by a different-color-designating portion formed in proximity to a portion of a back panel of said electronic apparatus fitted with said audio signal output terminals.

--11. (Twice Amended) The multi-channel audio system according to Claim [6] 5, wherein

one end of said connecting cable member has a plug connector structure fitted with said pair of conductor members [each] in the form of a pair of coupling holes respectively connected to two conductor portions;

said audio signal output terminals conform to a socket connector structure coupled with said plug connector member;

[one of said plug connector and] said socket connector has a pair of connecting pins bearing a pair of polarities and position-controlling means for matching said polarities when an other of said plug [connector and said socket connector] connectors is coupled with [said either of said plug connector and] said socket connector;

[said other connector has a] wherein said pair of coupling holes are to be coupled with said two connecting pins and said plug connector includes a position-controlling means coupling portion to be coupled with said position-controlling means of said socket connector for matching said polarities; and

said color for distinguishing said individual connecting cable members corresponds to a color provided for said plug connector.

--14. (Twice Amended) The multi-channel audio system according to Claim [13] 5, wherein each of said plurality of thermally contractile tubes are secured to one of said plurality of sheathing members for visually discerning said polarities of said conductor members provided for each of said plurality of connecting cable members.

--15. (Twice Amended) The multi-channel audio system according to Claim 5, wherein

an end of each of said plurality of connecting cable members has a plug connector structure fitted with a pair of said conductor members connected to said two pieces of conductor portions;

each of said audio signal output terminals are coupled with said plug connector;

[one of said plug connector and] said socket connector has a pair of connecting pins bearing a pair of polarities and position-controlling means for matching said polarities when coupled with an other of said plug [connector and said socket connector] connectors; and

said other of said plug [and socket conductor] connectors has a pair of coupling holes coupled with said two connecting pins and a position-controlling-means coupling portion coupled with said position-controlling means of said socket connector for matching said polarities.

--16. (Twice Amended) A multi-channel audio system comprising:

an electronic apparatus having a plurality of audio signal output terminals compatible with at least four of a plurality of channels;

a plurality of speakers for generating acoustic output for each of said plurality of channels in the form of an audio signal output from each of said plurality of audio signal output terminals; and

a plurality of connecting cable members each having a pair of conductor members bearing a pair of polarities, and each of said plurality of connecting cable members are individually sheathed with an insulating sheathing member and are used for connecting said electronic apparatus and said plurality of speakers, wherein

said audio signal output terminals corresponding to said plurality of channels provided for said electronic apparatus are individually distinguished by associating each of said plurality of channels with a color to visually discern individual channels; and

said plurality of connecting cable members is provided with a specific color corresponding to said colors provided for each of said plurality of audio signal output terminals for visual discernment of individual channels[.], wherein

said distinguishing of each of said plurality of connecting cable members is performed using a plurality of thermally contractile tubes each bearing a different color and secured to each of said plurality of connecting cable members.

--21. (Twice Amended) The multi-channel audio system according to Claim 16, wherein

one end of each of said plurality of connecting cable [member having] members has a first connector structure fitted with a pair of [conductor members] connecting pins bearing a pair

of polarities each connected to two conductor portions;

each of said plurality of audio signal output terminals conforms to a second connector structure and is coupled with said first connector member;

[one of] said first connector member [and said second connector member] has [a pair of connecting pins bearing a pair of polarities and] position-controlling means for matching said polarities when coupled with an other of [said first connector member and] said second connector [member] members;

[an other] another of [said first and] said second connector members has a pair of coupling holes coupled with said pair of connecting pins and a position-controlling-means coupling portion coupled with said position-controlling means of said first connector member for matching said polarities; and

said color for distinguishing said individual connecting cable members corresponds to said color provided for said first connector member.

--24. (Twice Amended) The multi-channel audio system according to Claim [23] 16, wherein each of said plurality of thermally contractile tubes is secured to a sheathing member for sheathing individual conductor members and for visually discerning said polarities of said conductor members provided for each of said plurality of connecting cable members.

--30. (Twice Amended) A connecting cable member having a pair of conductor members bearing a pair of polarities and sheathed by an insulating sheathing member, wherein

one end of said connecting cable member is provided with said pair of conductor members linked with a pair of conductive portions, said one end conforming to a connector structure bearing one of a plurality of predetermined colors; and

[an other] another end of said connecting cable member such

that said conductive portions are separated and said other end is fitted with a thermally contractile tube bearing a color identical to said color provided for a connector member secured to said end[.], wherein

each of a plurality of said sheathing members is provided with said thermally contractile tube bearing a unique color of said plurality of colors to visually discern said polarities of said conductor members at said other end of said connecting cable member.